

What is Claimed is:

1. An information recording disc including a signal recording layer for use in an information recording/reproducing apparatus having a light source for emitting a light flux and a focusing element for focusing the light flux to be applied to the signal recording layer,

wherein the signal recording layer is positioned approximately on a surface portion facing to the focusing element and the surface portion is coated with an anti-reflection coating film.

2. An information recording disc including a signal recording layer for use in an information recording/reproducing apparatus having a light source for emitting a light flux and a focusing element for focusing the light flux to be applied to the signal recording layer,

wherein the distance between the focusing element and a surface portion facing to the focusing element is not greater than a wavelength of the light flux, and

wherein the surface portion facing to the focusing element is coated with an anti-reflection coating film.

3. The information recording disc as claimed in Claim 2, wherein the anti-reflection coating film is formed by three or more layers of dielectric films.

4. The information recording disc as claimed in Claim 2, wherein a first dielectric film is formed on the signal recording layer, and

the anti-reflection coating layer is formed on the first dielectric film, so as to prevent reflection of the light flux incident into the first dielectric film.

5. The information recording disc as claimed in Claim 4, wherein a second dielectric film is formed on the opposite side of the signal recording layer not facing the focusing element and a reflection film is formed at the lower side of the second dielectric film, and

wherein the first dielectric film, the signal recording layer, the second dielectric film, and the reflection film generates an enhancement effect for a component of the light flux incident into the signal recording layer which component is in the normal line direction against the signal recording layer.

6. The information recording disc as claimed in Claim 4, wherein the anti-reflection coating layer has a thickness greater than the thickness of the signal recording layer.

7. The information recording disc as claimed in Claim 4, wherein the anti-reflection coating layer has a thickness not less than 100 nm.

8. The information recording disc as claimed in Claim 4, wherein the surface portion is formed smooth and flat by a burnishing step.

9. An information recording/reproducing apparatus comprising:  
a rotation mechanism for holding and rotating an information recording disc;  
a light source; and  
a focusing element for focusing a light flux emitted from the light source so as to be applied to a signal recording layer of the information recording disc;  
wherein the information recording disc is used in such a manner that a distance between the focusing element and the surface portion facing to this focusing element is not greater than a wavelength of the light flux, and the information recording disc includes an anti-reflection coating film formed on the surface portion facing to the focusing element.

10. The information recording/reproducing apparatus as claimed in claim 9, wherein the anti-reflection coating film of the information recording disc is formed by three or more layers of dielectric films.

11. The information recording/reproducing apparatus as claimed in Claim 9, wherein the information recording disc includes a first dielectric film formed on the signal recording layer, and

the anti-reflection coating layer of the information recording disc is formed on the first dielectric film, so as to prevent reflection of the light flux incident into the first dielectric film.

12. The information recording/reproducing apparatus as claimed in Claim 11, wherein the information recording disc includes a second dielectric film formed on the opposite side of the signal recording layer not facing the focusing element and a reflection film formed at the lower side of the second dielectric film, and

wherein the first dielectric film, the signal recording layer, the second dielectric film, and the reflection film generates an enhancement effect for a component of the light flux incident into the signal recording layer which component is in the normal line direction against the signal recording layer.

13. The information recording/reproducing apparatus as claimed in Claim 11, wherein the anti-reflection coating layer of the information recording disc has a thickness greater than the thickness of the signal recording layer.

14. The information recording/reproducing apparatus as claimed in Claim 11, wherein the anti-reflection coating layer of the information recording disc has a thickness not less than 100 nm.

15. The information recording/reproducing apparatus as claimed in Claim 11, wherein the surface portion of the information recording disc is formed smooth and flat by a burnishing step.